Osteoporosis Treatment Pathway for Adults - Algorithm 1

FRAGILITY FRACTURE ***RISK ASSESSMENT***

Refer to
Fracture Liaison Service (FLS) if available locally

- **Exclude** and **investigate** if secondary / non-osteoporotic causes of fracture suspected
- Osteoporosis **may be assumed** in postmenopausal women > 75 years if DXA unfeasible/inappropriate
- **Consider** DXA scan for patients > 50 years
- **Refer** to specialist premenopausal women and men < 50 years

On or commencing high dose oral corticosteroid **(≥7.5mg prednisolone or equivalent) for ≥ 3 months** – consider treatment

NICE recommend assessment of fracture risk in:

- all women ≥ 65 years and all men ≥ 75 years
- women under 65 and men under 75 years with any risk factor
- people under 50 years **only** with **major risk factor (in red)**

Risk factors include:

- **Previous fragility fracture**
- **Current/frequent use of oral or systemic glucocorticoids**
- History of falls
- Family history of hip fracture
- Other causes of secondary osteoporosis such as:
  - Endocrine diseases including diabetes mellitus, hyperthyroidism, hyperparathyroidism, Cushing's disease, hypogonadism in either sex including **untreated premature menopause** and treatment with aromatase inhibitors or GnRH agonists
  - Malabsorption conditions including IBD, coeliac disease
  - Chronic liver disease
  - Chronic kidney disease
  - Cystic Fibrosis / COPD
  - Rheumatoid arthritis
  - Immobility, e.g., from neurological injury / disease
- Low BMI < 18.5kg/m^2†
- Smoking†
- Alcohol intake >14 units/week for women and men†
- Drug therapy including long term SSRI, anti-epileptics, PPIs and pioglitazone

†Modifiable risks: patients should be encouraged to achieve ideal body weight, stop smoking, reduce alcohol intake, take regular exercise, increase muscle strength, and eat a balance diet

1st line treatment options

- **Alendronic acid 70mg once weekly tablets or**
- **Risedronate 35mg once weekly tablets**
- Ensure patient is able to follow administration instructions, (see SPCs) and consider swallowing issues
- Be aware of relevant MHRA safety advice regarding oesophageal reactions, osteonecrosis of jaw and ear and atypical femoral fracture
- If intolerant to initial choice, trial the other
- Seek specialist advice if unsatisfactory response (fracture after 1 year treatment, decrease in BMD from baseline)

If bisphosphonate is contraindicated or not tolerated, refer for Specialist Management

Calculate 10-year fracture risk using QFracture® or Frax® tool and give lifestyle advice
Consider calcium and vitamin D intake

High Risk | Intermediate Risk | Low Risk

DXA & recalculate fracture risk

High Risk | Low Risk

Lifestyle advice, reassure and reassess in 5 years or less depending on clinical context

2nd line treatment options
If oral bisphosphonate is **contraindicated** or **not tolerated**, consider patient factors:

- For younger patients - referral to secondary care for **zoledronic acid 5mg annual IV infusion** may be preferred OR
- **Denosumab SC injection every 6 months –** lifelong (see prescribing info on PAD)

NICE TA464 *-oral and IV bisphosphonates should be available to people **eligible for risk assessment** and who have been assessed at being at a higher risk of osteoporotic fragility fracture.* **All decisions should be based on what is important to the individual, health priorities, lifestyle and goals – take into account risk of fracture, risk of adverse effects, clinical circumstances and preferences.**

Specialist treatment options - RED status

- **Teriparatide 20mcg daily SC (max duration 18 months, not to be repeated) OR**
- **Strontium ranelate if intolerant to other treatments or they are contraindicated OR**
- **Romosozumab (funding required)**

ALL patients on **oral bisphosphonates, IV zoledronic acid or denosumab** should receive supplemental calcium and vitamin D daily unless dietary intake of calcium is adequate, (see local preferred products)